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# Quality Improvement Initiatives and Interventions for Decreasing Falls in the Hospital Setting

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Walden University 2023

# Abstract

Quality Improvement Initiatives and Interventions for Decreasing Falls in the Hospital

# Setting by

Fredlyn Lolange

MS, College of Staten Island, 2017

BS, Long Island University, 2013

Project Submitted in Complete Fulfillment of

the Requirements for the Degree of

**Doctor of Nursing Practice** 

Walden University

May 2023

#### Abstract

Patient falls in health care settings are a widespread and severe problem, and they often happen as a result of a complex set of causes. In the United States, between 3.3 and 11.5 falls occur per 1,000 patient days. Reducing the incidence of falls in a health care setting would bring significant positive change and decrease the incidence of harm to patients in the hospital setting. This staff education project's purpose is based on addressing falls, a safety concern and a health issue that continues to put patients at an increased risk. Theories used to inform the project include the goal-setting theory, the theory of reasoned action/planned behavior, the protection motivation theory, and the goals attainment theory. The question identified for the project was whether a staff education program based on reducing falls in patients who use opioid narcotics, sleep aids, and/or other pain medications would improve the staff's knowledge in fall prevention within the hospital setting. A staff education module on fall prevention utilizing a PowerPoint, pretest, and posttest assessment tool was created and given to 10 healthcare providers who attended the program to assess for a change in knowledge. The participants responses were analyzed using descriptive statistics and proportional statistical analysis. Initial scores from the educational intervention pretest showed an average of 60.4% and post intervention scores were 89.9%. A Wilcoxon signed-rank test was used to validate the findings and showed significant improvement post the educational intervention. The fall rate pre-intervention was 23%; post intervention rate reduced to 17%. Positive social change includes decreasing the rate of falls, decreasing length of stay due to complications of falls, and the possibility of improving patient outcomes overall.

# Quality Improvement Initiatives and Interventions for Decreasing Falls in the Hospital Setting by

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the Requirements for the Degree of
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# Dedication

This project is dedicated to my family, friends and loved ones. My father and daughter in heaven you have given me strength to strive and work towards my goals and dreams. I promise to always make you proud and aim to be the best I can be. My partner William and our two daughters Ariel and Ava you guys have provided support and ensured that I had all that I needed to be successful and forever grateful.

# **Table of Contents**

List of Tables	iii
List of Figures	iv
Section 1: Nature of the Project	1
Introduction	1
Problem Statement	2
Purpose Statement	4
Practice-Focused Question	5
Nature of the Doctoral Project	5
Significance	6
Summary	8
Section 2: Background and Context	8
Introduction	8
Concepts, Models, and Theories	10
Nursing Role Effectiveness Model (NREM)	10
AACN Synergy Model for Patient Care	11
Theories	12
Relevance to Nursing Practice	14
Local Background and Context	16
Role of the DNP Student	18

Role of the Project Team	20
Summary	21
Section 3: Collection and Analysis of Evidence	21
Introduction	21
Practice-Focused Question(s)	22
Sources of Evidence	23
Evidence Generated for the Doctoral Project	23
Participants	25
Procedures	26
Protections, Permissions, and Recruitment Criteria	26
Analysis and Synthesis	27
Summary	27
Section 4: Findings and Recommendations	28
Quality Improvement Initiatives and Interventions for Decreasing Falls	28
Section 5: Dissemination Plan	40
Analysis of Self	41
Summary	43
References	46
Appendix A: Fall Prevention PowerPoint (PPT)	50
Appendix B: Fall Knowledge Measurement Tool (Pre/Post Test)	57
Appendix C: High Risk Medication Handout	61

Appendix D: Summary Training Evaluation Form	.61
List of Tables	
Table 1. Pre and Post-Test Results on the Outcomes of 10 Nurses Pre- and Posttests to	
Assess Understanding of Reducing Falls in Hospital Setting	. 32
Table 2. Wilcoxon Signed-Rank Test Used to Measure the Effectiveness of Quality	
Improvement Initiatives in Reducing Hospital Fall Rates	. 33

# List of Figures

Figure 1. Nursing Role Effectiveness Model
Figure 2. The Efficacy of Bedside Nursing Rounds in Reducing Hospital Falls

#### Section 1: Nature of the Project

#### Introduction

Falls in hospitals contribute to an increased hospital stay, lowered quality of life, increased hospital bills, and sometimes even death. The challenge of falls in healthcare settings has become a significant concern to patients, hospital management, and other stakeholders. Patient severe injury or death connected with a fall while in a healthcare related setting is viewed as a "never event" by the Joint Commission and the National Quality Forum. As a result, the Centers for Medicare and Medicaid Services ceased reimbursing hospitals to treat injuries resulting from a fall. At the same time, the patient is in care of that facility, and private insurers largely follow the exact policy change (Agency for Healthcare Research and Quality, 2019).

The project suggested in this paper is an educational initiative that uses a teambased approach to solving the challenges of falls. The project will educate the concerned staff members on the relationship between falls and the use of narcotic drugs. The project aims at ensuring that adequate fall prevention measures are put in place when handling this group of patients.

The expected change implications of the project include increased patient safety and thus improvements in the hospital fall-induced injury-related challenges like the chance of returning the patient to the expected baseline functions before hospital visitation. As a team-based approach, the project will ensure that all concerned staff, including nurses, primary care physicians, and pharmacists, participate in creating the fall reduction initiatives and thus minimize the chances of failure to adhere to set measures.

The educational approach will also develop a team of professionals that can implement change in healthcare-related falls even out of the hospital in which the project will be implemented.

#### **Problem Statement**

The issuance of medications as a sleep aid and for other recommended narcotic purposes plays a role in many of these falls; research has found that approximately one third of these accidents can successfully be prevented. Within the hospital care system, standards of care exist, along with specific interventions that have been proven to decrease falls and incidents in the acute setting (Bjerk et al., 2017). The hospital where I plan to complete this project currently has a fall incidence of 2.46%, and the goal is to bring this down to 1.75%, in accordance with national guidelines. National safety benchmarks indicate a goal of, at most, 3.44 falls/1,000 patient days on medical, surgical, and inpatient floors (Venema et al., 2019).

With respect to hospitalization, there are three goals. At times these goals can come into conflict with one another, mainly when dealing with patients who have high psychosocial and medical complexity: treatment of the acute illness, prioritization of patient safety, and facilitation of return to or retention of the baseline level of function (Ganz et al., 2013). Patient with acute illness usually experience severe pain and are often put on opioid based pain medications as well as sleep aides. However, these medicines have been shown to affect the cognitive functions and, in most cases, cause dizziness of patients which results in increased incidence of falls. Therefore, while narcotics and sleep aides are useful in ensuring that patients have elevated pain, they may cause further

injuries. This forms a dilemma in most acute care settings since patients cannot be left without adequate pain killers and sleep aides where needed. The goal of healthcare is to ensure that the patient returns to the basic functions that they were in before development of their illness if not improved. However, the use of some medications like narcotic elevates symptoms but also contribute to hospital falls which can result in serious injuries. To make these goals more compatible, the John A. Hartford Foundation, the Institute for Healthcare Improvement, the Catholic Health Association of the United States, and the American Hospital Association collaborated on an initiative referred to as "age-friendly health systems" (Institute for Healthcare Improvement, 2019). The initiative emphasizes the need to focus on patient safety in the delivery of healthcare services. Institute for Healthcare Improvement (2019) mentions that the overall goal in healthcare is never achieved if the healthcare interventions used cause harm to the patient or have the potential of causing more harm than good.

Projects and initiatives that can bring reductions in hospital safety, with a specific focus on decreasing the number of falls, can significantly improve the care available and reduce the stress and risk associated with nursing practice. Entities that take advantage of the changes that this reduction would bring will see shorter patient stays, more outstanding quality of life for patients, and reduced costs that would have accrued due to patient injury. The project supports social change by augmenting the quality of life and bringing positive health impacts.

Suppose all members of an interdisciplinary team can collaborate with respect to the interventions designed to promote fall prevention. In that case, the entire institution and its patients can benefit as a result. Within a hospital environment, staff education sessions about quality improvement plans and specific interventions designed to reduce patient fall with respect to narcotics and sleep aids can minimize the time in the hospital and overall cost for both hospitals and patients while also promoting a positive change for society. Every member of the various teams from several disciplines must focus on patient care for this improvement to occur. For falls to decrease, high-quality prevention includes standardized practices and a culture of care that boosts communication, individual expertise, and teamwork inpatient care, after appropriate study and intervention, the incidence of falls will decrease.

# **Purpose Statement**

Within a hospital setting, patients face an increased risk of falling when sleep aids and/or opioid narcotics are in use, increasing the incidence of harm and the length of stays in the hospital. Herzig et al. (2019) note a correlation between falls in-hospital care and medications that cause sedation. Nevertheless, healthcare workers and stakeholders are not sufficiently informed about this correlation. Measures to address the challenge of falls focus on areas other than sleep aides and narcotics medication. Hospitals are, however, still experiencing falls of more than the set national standard of 1.75% or below (Venema et al., 2019). There is, therefore, a need to view the problem from another angle and develop further initiatives to support the existing literature and practical applications.

This study aims to analyze interventions and initiatives that decrease the rate of falls and how these strategies can best be implemented to suit patient needs. The current state of staff education indicates a gap in training on quality standards and related

initiatives that can improve outcomes for patients concerning fall prevention and falls (Francis-Coad et al., 2018). Therefore, this project aims to educate staff and elevate awareness concerning the possible risks associated with using medications that cause sedation and how those medications can harm patients.

# **Practice-Focused Question**

The project question relevant to this paper is: Will staff education programs based on reducing falls in patients who use opioid narcotics, sleep aids, and/or other pain medications improve the staff's knowledge in fall prevention within the hospital care population?

This question has relevance with respect to the identified practice gap because it provides information about the connections among interventions, falls, and the significance of increasing staff awareness to maximize the quality of care. Patient and staff satisfaction measures will also increase (Morris & Oridian, 2017). As Haddad et al. (2018) note, increasing nurses' knowledge about the correlation between utilization of sleep or opioid medication and patient falls should elevate awareness among nurses of patients who might be at risk for falling. This awareness will also increase the timely application as well as the nurses' confidence in and knowledge of the significance of the fall prevention measures.

#### **Nature of the Doctoral Project**

The information that will be used to inform the decisions in the project will be gathered from secondary data sources like journals and books, healthcare-focused websites, and hospital data. Journals and books will provide insight into theories, models,

and approaches to implement the project's goals. Websites like governmental healthcare sites will provide data on the statistics of the problem, including its prevalence, risk factors, effects, and highlight of statistics relating to the research gap of the problem. Data obtained from hospitals will be used to understand the situation's scope in the setting that the intervention will be applied. The gathered will inform on the knowledge gap and how it can be bridged. This information will also highlight similar interventions that other researchers have made in the field and the impact on the targeted population.

Data will be organized and analyzed using frequency distribution tables and measures of central tendency to gauge the clinical significance of the intervention on the nurses and the patients. Data will be categorized into groups that analyze the causes of the falls, the preventive measure that will have been used, and the measure's impact on patients, healthcare providers, and the general effect of the healthcare facility at large.

# **Significance**

This project looks to fill a current gap in practice in the areas of knowledge of nursing staff about the correlation between utilization of sleep and opioid medications and the increased occurrence of falls among the adult patient population. Increasing staff education in this area can facilitate more positive outcomes. The goal is to provide focus for disparities in health care and reduce the closing of those disparities in education and communication among staff to provide optimal safety measures and alternative treatment options that include a move away from opioids so that harm can be avoided.

Evidence supporting this problem comes from various stakeholders, including providers, quality improvement reports, administration, and nursing staff who hold weekly meetings

to discuss falls and care issues. The hospital system in which this staff education project is taking place carries out monthly meetings to discuss problems such as patient falls and their impact on the well-being of the patients.

The nursing staff's knowledge deficit in this area leads to a disparity in practice that results in more use of sleep medications and opioids – and more patient falls – during hospitalization. This project will confront the problem by identifying specific risk factors and covering the gaps connected to falls, educating nursing staff, and elevating awareness about the importance of boosting the quality of interventions and initiatives to remedy gaps in the practice of nursing connected to falls. This project aims to alleviate the gaps in nursing education and knowledge concerning the greater risk of falls among patients who are prescribed and who take sleep and/or opioid medications during hospitalization. The focus on implementing this level of education will decrease falls overall and falls that involve injury through the raising of staff awareness.

This improvement will occur by implementing interventions based on research evidence and alternative care modalities with an approach for sleep support that does not involve opioids. Melin et al. (2018) concluded that the correct changes in processes and the utilization of evidence-based care interventions within inpatient acute care units could significantly reduce falls.

The issue involving opioids and sleep aids is a significant concern in health care. Daoust et al. (2018) conclude that drugs influencing the central nervous system lead to sedation and dizziness and elevate the risk of falls. Using sleep aids and opioids has a connection with an elevated possibility of falls and mortality in older adults. Therefore,

on top of encouraging the use of alternative medications in place of opioids, this project aims to empower nurses with the proper knowledge to prevent falls in patients on opioid based medicines. Patients on opioids typically fall when engaged in activities that involve unaided movement from one place to another. The knowledge gained from this study will therefore ensure that the nurses are aware of the increased risk of falls and thus develop guidelines to follow to reduce that risk.

## **Summary**

Within the health care setting, falls that lead to injury increases the risk of complications and extended stays in the hospital. Implementing this project will assist in elevating awareness and in helping staff determine which patients have an elevated risk of falling as a result of sleep aids and opioid medications for pain. Falls, especially those that involve injury, can bring on several complications that can harm the patient's health. When patients suffer damage in the hospital setting that can lead to higher costs and decreased payments from third-party entities.

Section 2: Background and Context

## Introduction

This project looks to fill a current gap in practice in the areas of knowledge of nursing staff about the correlation between utilization of sleep and opioid medications and the increased occurrence of falls among the adult patient population. Increasing staff education in this area can facilitate more positive outcomes. The goal is to provide focus for disparities in health care and reduce the closing of those disparities in education and

communication among staff to provide optimal safety measures and alternative treatment options that include a move away from opioids so that harm can be avoided.

This section will cover theories and models relevant to understanding the gap and how educating healthcare professionals on the link between opioids and pain medications and falls can bridge the gap. The nursing models that will be used in implementing the project include the Nursing role effectiveness model (NREM) and the AACN Synergy Model for Patient Care. The NREM emphasizes the importance of improving characteristics of the hospital setting and those of the nurse-like knowledge. The AACN synergy model, on the other hand, emphasizes matching a patient's needs with the competencies of the nurse. The two models are vital in implementing this project because they address how the project can impact knowledge-based changes on the healthcare provider and how these changes can be translated to the patient and thus reduce the prevalence of falls. Theories that will be used for the project are theories developed to understand behavioral intentions and motivate changes in behavior. The project's primary goal is to use knowledge to drive evidence-based behavioral and organizational changes to reduce hospital falls. The Theory of Reasoned Action/Planned Behavior, The Protection Motivation Theory, and the Goal Attainment Theory sufficiently serve this purpose.

This section will also review the significance of falls in hospitals, the current practices in preventing falls within hospital settings, and the knowledge gap that this project aims to bridge. The background in which the project will be implemented will be analyzed. Lastly, this section will also articulate the role of the DNP student and the involved project implementation team in facilitating the enactment of the project.

# **Concepts, Models, and Theories**

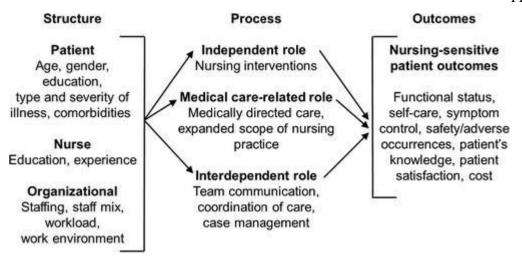
# **Nursing Role Effectiveness Model (NREM)**

The NREM is a model that highlights the connectivity between the structures, processes, and outcomes of inpatient care. The NREM posits that models for measuring the efficiency and effectiveness of healthcare approaches have to take the role of the organization's characteristics and the nurse into account on top of those of the patient. The effectiveness of nursing care can be examined in terms of the characteristics of the nurse delivering the service, the characteristics of the patient and condition at the time of admission, and the organizational settings. Nursing care effectiveness may alternatively be viewed from a patient safety perspective. Effective healthcare is measured in terms of safety-related outcomes like patient falls and medication errors, among others.

Amaral and Vidinha (2014) uphold that a nurse's engagement capacity is influenced by nurse-specific variables like education, knowledge, ability to establish effective communication, and clinical expertise. Organizational settings that affect nursing effectiveness include processes, settings, and educational drives that influence the performance of the healthcare providers. This model effectively generates evidence-based links between process and nursing independent interventions and expected patient outcomes like the ability to perform activities of daily living (ADLs).

Figure 1

Nursing Role Effectiveness Model



Note. (see Amaral & Vidinha, 2014)

As shown in figure 1 above, nursing care is a highly interdependent process that requires collaboration from other parts of the organization. In applying this concept to falls in hospital settings, it is clear that interventions to fall reduction have to address the factors that can affect the service delivery process, like the service provider's expertise. (Lukewichet al., 2019) affirm that the NREM conceptualizes the outcomes by analyzing the factors that precede the outcome and is thus effective in observing and analyzing the contribution of specific elements.

# **AACN Synergy Model for Patient Care**

The Synergy Model is a conceptual framework that aims to improve healthcare outcomes by ensuring that the skill set and competencies of the nursing care professional match the patient's needs. AACN (2021) holds that there is a close link between the competence of the healthcare provider and the outcomes of the patient and has thus developed the model as part of the curriculum requirement. The model thus emphasizes

the need to provide resources that enhance nursing competencies whenever service delivery gaps are noted.

The nursing model is made up of eight universal characteristics (AACN, 2021). Among these characteristics is the concept of understanding the vulnerability of a patient and evidence-based decision-making. This model asks the nurse to analyze the patient characteristics and develop criteria for assigning nurses with the competencies to deliver the most appropriate care to the patient. Cordon et al. (2021) affirm that the synergy model is among the best models for measuring human resource-related challenges in healthcare delivery and evaluating causes of adverse events like falls among patients.

Falls in nursing care is considered a factor that indicates nursing care quality, including barriers to quality service delivery. The model advocates for integrating a nurse's experience, skills, and attitudes in allocating nurses to patients (AACN, 2021). By highlighting the needs of a patient, this model is effective in understanding healthcare provision deficits. For example, in the context of this paper, the model can be used in understanding the knowledge gap that contributes to patient falls by reviewing if a nurse has the skills and knowledge to serve patients at risk of falling.

#### **Theories**

Theories relevant to this project include the Theory of Reasoned Action/Planned Behavior, protection motivation theory, and the goals attainment theory. The Theory of Reasoned Action/Planned Behavior suggests that people's actions result from specific intentions. These actions may be deliberate or subconsciously influenced by the individual's behavior, values, attitudes, and subjective norms. On the other hand, the

Protection Motivation Theory posits that when a person perceives a threat to their life, they respond or become interested in adhering to a preventive mechanism. According to the two theories, therefore, changes in nursing practice in addressing falls in developing the intention to address the issue by informing the nurse of the risk involved.

These two theories work hand in hand with the goal attainment theory, which emphasizes the importance of knowledge in goal attainment. The goals attainment theory is an intervention-based concept to resolving challenges through problem analysis and joint decision making. The theory postulates that an individual's perception of reality affects their judgment process and thus their actions (Park, 2021). The theory, therefore, seeks to ensure that patients' and nurses' perceptions are based on facts, and their decisions result in a positive outcome.

The Goal Attainment Theory primarily emphasizes the importance of communication between patients and healthcare providers and the need to address challenges that patients face by considering the input from both providers and patients. in the context of this paper. This theory will be applied in bridging the hospital falls-related knowledge gap in nursing professionals by forming problem analysis and goal achievement strategies in nursing education. Park (2021) highlights that the goal attainment theory improves focus and motivation in change initiatives because it creates positive change for both the perpetrators and benefactors of the change. This link motivates healthcare providers by providing a practical application field for their knowledge and an assessment of the applicability of change initiatives.

## **Relevance to Nursing Practice**

LeLaurin and Shorr (2019) site a falls prevalence of experiencing at least one fall in 2% of all hospitalized patients. This prevalence is not only high but significant in causing unpredicted injuries. A quarter of all the falls that occur in hospitalized patients cause injuries of different degrees. The prevalence of seriously injurious falls stands at 10% and commonly consists of head, hip, and sometimes death. Therefore, falls have been listed among the indicators of the quality of care in patients (LeLaurin & Shorr, 2019).

Falls in hospital settings always have a broad causative possibility. Current practices in preventing falls are thus also multipronged and address falls from a broader perspective. Preventive mechanisms in hospitals include the use of lower beds, patient sitters, and bed alarms. Other fall prevention measures include environmental modifications like replacing slippery floors and ensuring that patients' beds have adequate surveillance and easily accessible. Medical interventions in addressing deficiency induced falls like a proper assessment of conditions that can cause calls like hypoglycemia and hypernatremia are also used (LeLaurin & Shorr, 2019). Some hospital organizations have also implemented other clinician-determined strategies like patients and patients' family education and fall prediction tools.

The existence of a knowledge gap in addressing falls in hospitals has remained a concern for most healthcare settings. Interventions like the development of fall prediction tools are primarily developed to address this challenge. In hospital settings, falls are routinely reported through incidence reports (LeLaurin & Shorr, 2019). However, the retrospective nature of these reports prevents the nurse from taking action to prevent the

interacting risk factors that cause falls. Nevertheless, observations from the incidence reports indicate a pattern that links patient falls to characteristics of the environment, the patient characteristics, and the medical interventions used. The prediction checklist was therefore developed as a proactive measure in preventing falls in hospitals. However, the relevance of these tools is relatively low since it lacks a score that can guide the required interventions. In 2013, the National Institute for Health and Care Excellence (NICE) thus recommended against using fall prediction tools on all patients. Instead, it focused on their use on elderly patients only (LeLaurin & Shorr, 2019).

This project will bridge the knowledge gap that nurses and other healthcare professionals have. Proactive fall preventive measures like fall prediction reporting tools and retrospective methods like analysis of incident reports can be helpful if an informed nurse undertakes them. The project aims at ensuring that a nurse can interpret patient information and identify risks to and causes of falls among their patients. The project will also enable the nurse to identify dangers to hospital effectively falls inpatient incidence reports. The nurse or healthcare provider in charge will learn how to implement evidencebased fall prevention mechanisms for their patients.

Improvements in incidence reports analysis will result in the timely identification of common causes of falls in patients and ensure that broad mechanisms of fall prevention are developed. Incidence reports can also ensure that fall prevention mechanisms are tailored to match each patient's characteristics. With respect to the use of opioids and sleep aides, this project will introduce the nurse to alternative medications, required responsibilities like increased checkup rounds, the communication needed to the

patient or patient's family before issuing opioid-based drugs, and required hospital settings like the use of lower beds.

#### **Local Background and Context**

The setting for this project is a medical-surgical inpatient unit with 36 beds, insight an urban Level 1 trauma medical center with critical access, primarily focusing on the adult population. The staff training project will involve between 10 and 15 nurses and various interdisciplinary team members, such as physicians, pharmacy staff, advance practice providers (APPs), social workers, case managers, and ancillary staff members.

In the health care setting the problem of falls has been an area in which health care providers, administrators and advanced care professionals are repeatedly trying to prevent and ensure patient safety. In the acute setting falls are one of the most reported sentinel and adverse events reported on a yearly basis. The problem discussed has an impact on nearly 700,000 to a million patients with approximately 250,000 injuries and mortality of 11,000. According to research approximately 2% of patient falls while hospitalized (Rodziewicz et al,2022) According to Medical error and reduction, Falls are a common problem. Each year, over one-third of people over the age of 65 suffer a fall, and one-third of these falls cause injuries (Rodziewicz et al,2022). In a healthcare setting, a number of factors may further increase the risk of falls. The setting in which this project will be undertaken is on a 36 bedded acute adult medical surgical setting which the mentioned problem requires further intervention and investigation . The practice gap that this staff education initiative will remedy is the knowledge gap among nursing staff connected to the association between the use of opioids and sleep aid

medications and the increased occurrence of falls among the adult patient population in hospitals. Through this increase in staff education, the facility will see positive outcomes increase. Patient fall rates decrease once the staff gains awareness of the correlation that falls have with sleep aids and opioid medications. The goal is to provide focus on disparities and gaps in health care to remedy gaps in education and communication for staff. This change in focus will bring about sufficient safety measures and awareness of alternative treatment modalities and approaches to pain other than opioid medications to reduce the possibility of harm from using those medications. Within the selected hospital settings, patients suffer from an elevated risk of falling when they use opioids for pain or sleep aid medications; as a result, they can encounter more significant harm and end up staying in the hospital longer. Herzig et al. (2019) found a correlation between falls in the hospital setting and medications that cause sedation for hospitalized patients. The gap in the research involves specific initiatives and interventions that can lead to a drop in the rate of patient falls and how those initiatives and interventions can best be utilized to suit the needs of patients. It is necessary to improve staff education about relevant initiatives and quality standards that can boost patient outcomes in the area of preventing falls (Francis-Coad et al., 2018). In the hospital setting selected for this project, the relevant stakeholders meet biweekly n a quality improvement setting to discuss relevant issues with respect to patient care initiatives established by the hospital. In these meetings, one issue that arose was a gap in nursing knowledge concerning the connection between the use of opioids and sleep aids and the incidence of patient falls.

This project will educate nursing and other hospital staff in this area to elevate overall awareness about the possible risks connected with using medications designed to cause sedation and how that utilization can lead to patient harm.

This project will target the following members of a hospital population: clinical staff, including advanced practice providers (Pas and APRNs) and nurses, and interdisciplinary team members. The purpose of the project is to provide staff with the necessary information and education to provide care for patients who have an elevated risk of falling. The hospital in which the program will take place and the quality improvement (QI) meetings hold monthly meetings about ways to address falls, especially in the area of prevention. The program is designed to provide information and insight and generate awareness of patients taking opioids for pain medication and/or sleep aids to bring about quality patient outcomes.

The presenter will utilize a PowerPoint presentation (Appendix A), giving a pre and post-session knowledge assessment test (Appendix B) using evidence-based practice (EBP) and *Preventing Falls in the Hospital Setting 4C (citation)*. These will include assessing Staff Education and Training Toolkit to measure knowledge among the staff on risk for falling and preventive methods for patients taking sleep aids and/or opioids/narcotics for pain management (citation).

## **Role of the DNP Student**

A student who has gained a Doctor of Nursing Practice (DNP) has the potential to become a valuable asset within the broader medical community, offering an advanced degree of knowledge and expertise. At the same time, significant alterations come to the

health care system. The Affordable Care Act (ACA) opened up health care access to more and more Americans, and DNPs working in public and private health systems have an essential role in the transition.

The DNP student gains expertise in several areas, and their aggregation of leadership allows them to contribute to such staff education projects such as this one through several methods:

- Data assessment. This involves collecting and monitoring data about the health status of a particular population and then making that information available. In this instance, this consists of delivering the staff education and tracking the program's change to staff awareness of the correlation between sleep aids and opioid medications for pain management and the incidence of patient falls.
- **Development of policy**. This involves moving from the assessment of data to developing policies and procedures that will support the health of a particular population. This also involves bringing in specific scientific knowledge in the decision-making process. In this instance, this involves taking the data from the post-assessments and determining whether further education is needed; if no other education is needed, this would include formulating action items for the hospital to take to minimize the incidence of patient falls.
- They are providing assurance of availability. This involves ensuring that the staff has the equipment and other resources that they need to enact the newly selected policies. This instance provides that the hospitals have alternate

modalities to help patients sleep and manage pain without excess sleep aids and opioids, or other narcotics.

# Role of the Project Team

When it comes to delivering health care, teamwork is an essential element in fostering optimal patient outcomes. Because of increased co-morbidities and an increase in the complexity of care specialization, teamwork becomes increasingly important. In the case of the topic of this study, understanding the overlap between administration of opioids and sleep aids and incidence of falls is crucial, relying on collaboration among nursing staff, pharmacy staff, physicians, and patients to ensure optimal outcomes (Babiker et al., 2014). The ongoing changes in health care require changes in plan of care to assist with better comes for those at risk for increased harm. This project will advance, transform and promote positive social change through education, raising awareness and ensuring implementation through collaboration. In the health care setting advanced care professionals are at the forefront of providing care and can aide in providing patient safety through implementation of interventions and educating interdisciplinary members to help abolish the problem and prevent further harm. Health care professionals through collaboration with patients, families and various members of the team can ensure a change in hospital systems and society through exploring and implementing safety measures which are effective in prevention of falls. Of upmost importance is transforming Nursing practice to improve care.

# **Summary**

The gap in healthcare providers' knowledge in addressing falls in patients on sleep aides/narcotics affects many areas of the quality-of-care provisions for patients. For instance, it influences the types of measures that healthcare providers put into preventing falls and the criteria nurses use to categorize patients into risk level groups. There is, therefore, a need to understand the statics of the problem of falls in hospitals from a broader perspective. The successful implementation of the preventive intervention proposed in this project relies on evidence that supports and guides the decisions that the change strategy develops.

# Section 3: Collection and Analysis of Evidence

## Introduction

Using sleep aids/ narcotics relatively elevate the risk of fall among hospitalized patients. As Herzig et al. (2021) concluded, sleep agents have a known impact on balance and have connections with falls within the health care setting. Practitioners consider falls as a significant challenge with respect to patient safety within the hospital setting, causing an increase in inpatient stay length and overall costs and the incidence of severe injuries and even death in patients. This is particularly of concern among elderly patients in acute care hospital settings because of an increase in stay length and cost, a decrease in reimbursement, and an increase in adverse health outcomes for the patients. Falls also correlate with high degrees of depression, a loss of self-confidence, and increased anxiety for the patient (Francis-Coat et al., 2018).

Falls lead to a high cost for the overall health care system and an elevated incidence of mortality and morbidity; however, there is also a need for continued research in identifying patients who have a high risk of injuries in the instance of a fall (Bruce et al., 2017). Initiatives for fall prevention must maintain balance with other tactics, such as maintaining and enhancing patient mobility and reducing restraints to provide optimal patient care (Bjerk et al., 2019). This is a key concern in the nursing profession because elevating staff awareness and education about risk factors improves care.

# **Practice-Focused Question(s)**

The project question relevant to this paper is: Will a staff education module based on reducing falls in patients who use opioid narcotics, sleep aids, and/or other pain medications improve the knowledge that the staff has in fall prevention within the hospital care population?

This question has relevance with respect to the identified practice gap because it provides information about the connections among interventions, falls, and the significance of increasing staff awareness to maximize the quality of care. Patient and staff satisfaction measures will also increase (Morris & Oridian, 2017). As Haddad et al. (2018) note, increasing nurses' knowledge about the correlation between utilization of sleep or opioid medication and patient falls should elevate awareness among nurses of patients who might be at risk for falling.

#### **Sources of Evidence**

## **Evidence Generated for the Doctoral Project**

In order to carry out the problem of falls that has an impact on patients in the health care setting various methods will be utilized. The sources of evidence and approach will include various members of the interdisciplinary team to obtain resources and information needed to carry out the project. The aim is to further explore and analyze risk factors, demographics, age, gender and circumstances which contributed to the fall in order to ensure quality. The goal is to collaborate with members of the quality improvement team to investigate fall rates, concerns and reasons. Once data is obtained the aim is to tailor education and interventions to address the concerns and ensure a decrease in fall rates. Once complete with analyzation the aim will be to examine and explore the impact of new interventions on the rate of falls. The risk factors of focus will be prior falls and medications that can contribute to falls.

Collection and analysis of data will play a wide range of roles in this project. The evidence used in this project includes the difference between the current prevalence of falls among hospitalized patients and the prevalence of falls in patients who are on narcotics and sleep aids. The differences between the causes of falls in the patients on sleep aides/drugs will be compared to those of the general hospital population. Analysis of fall incidences will give insight into the significance that the intervention will have. The future goal of this project is to reduce falls in the study hospital by 50%. Therefore, educating the staff on the incidence of falls on the unit where the project will be

implemented will help the staff reduce the incidence of falls by identifying those at risk and implementing fall prevention techniques and recommendations.

Evidence supporting this project will also be generated by analyzing the prevalence of narcotics/ sleep aides in patients in severe pain, like those who had just undergone surgery. Studying the prevalence of narcotics use in the country and the targeted facility will identify the existence of a possible link between narcotics and sleep aide use and risks to falling among hospitalized patients. The significance of this link will show the appropriateness of the approach suggested in this research.

This project will also analyze the correct knowledge expectations that have been outlined in national patient safety standards. The obtained data will then be compared to the knowledge that nurses and other healthcare providers have. Analyzing the expected patient safety knowledge that nurses are supposed to have, and the actual knowledge that nurses in the study hospital have will facilitate the identification of knowledge gaps and thus ensure that the project is tailored to fill those gaps.

Fall prevention measures that are currently available in the general population and at the hospital will be analyzed and considered in this project. The pros and cons of these measures will be evaluated. Collection and analysis of fall prevention measures in place in the study facility and the general population will ensure that the project's proposed prevention approach is not already in place in the hospital and is relevant to the project's field. Furthermore, this data will highlight the capacity of addressing the gaps in the fall prevention measures that the project has.

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# **Participants**

The projects participants included: staff employees that are made up of advanced care providers nurses and doctors. All of healthcare providers recruited were working within the acute unit where the project will be taking place. Members not directly linked to the unit consisted of pharmacists, social workers, and hospital case managers.

Participants in this project will consist of up to fifteen nurses and five doctors working in the department. Descriptive data will be collected from each participant to include age, profession, years of service, and location of work to better assist with demographics at the professional level.

# **Procedures**

This project's data collection tools include a pre and posttest questionnaire

(Appendix B) to assess their knowledge base, a PowerPoint (PPT) staff education module

(Appendix A) on Fall Prevention. All information will be collected from the scores on
the test and each test will be assigned a letter to pair the responses together from before
the

PPT and after to measure changes in knowledge.

# Protections, Permissions, and Recruitment Criteria

Permission to conduct this project will be sought from the hospital administration and Walden University under which this doctoral project occurs. The program operation will also be authorized by the local ethics and commission board in the region overseeing the site. Participation will be voluntary for all healthcare providers. Participation will be subject to signage of an informed consent sheet by the participants, and they will be allowed to leave the project or not complete it at their discretion.

The Walden University Staff Education manual and the Walden IRB will provide guidelines for participation and permissions. After receiving IRB approval, participants will be invited to attend the educational session. A letter will be assigned to each test and demographic collection sheet. This will protect identity and anonymity of the participants. All responses will be kept in a locked cabinet and password protected file to be destroyed at the completion of the DNP project.

### **Analysis and Synthesis**

All data will be collected in the form of pre-and post-test (Appendix B). The information provided will disseminated in educational sessions and assessment of knowledge will be assessed through pre and posttest (Appendix B). The pre and post-test will be compromised of 15-20 questions and will aide in assessing knowledge preeducation vs post education to ensure educational sessions were beneficial to help ensure change and a decrease in fall scores by 50%. The scores will be compared after education is conducted and analyzed. Once information is provided tracking of fall rates will be recorded based on an increase in awareness and education sessions.

To assure integrity of evidence will keep inventory and ensure that all information is kept in folder in a locked cabinet which is password protected and after completion of project to be destroyed. The plan is to maintain and follow ethical standards in project. The plan is to ensure sensitivity to project participants and ensure guidelines are followed. The analysis procedures utilized to address the practice focus question are experimental in nature. The aim is to focus on descriptive questions which are geared towards assessing staff's educational level and response towards the mentioned problem. The use and collaboration with the hospital's quality improvement department to identify an area and problem which needs improvement in healthcare.

#### **Summary**

Generating evidence for the project is among the most critical steps because they inform the progress and significance of the intended change intervention. This section thus covered ways through which data was generated and how the relevance, validity,

and reliability of the generated data were maintained. The following section will tackle the findings and conclusions generated from the data collected in this section. Section 4 will also provide recommendations that were developed following the interpretation of the findings.

### Section 4: Findings and Recommendations

### **Quality Improvement Initiatives and Interventions for Decreasing Falls**

Falls in the hospital setting can significantly impact the safety of patients and their families. Various hospitals need help to decrease falls and ensure the highest possible quality of care. Quality improvement (QI) initiatives and interventions are one method by which hospitals can minimize falls in their facilities. The proposal explores quality improvement initiatives and interventions for decreasing falls in the hospital. The proposal discusses different approaches that may help minimize fall rates, such as training staff members on proper patient handling techniques and implementing an electronic fall risk assessment system with various interventions. Before implementing any QI initiatives or interventions to decrease falls in the hospital setting, it is crucial first to assess the problem and current state of affairs (Wells et al., 2018). This can be accomplished through different methods, but pre-testing is essential to gauge the efficacy of any potential solutions. There are several ways to measure falls in the hospital setting, but some standard metrics include the following:

- Falling incidents in every 1,000 patient days.
- Number of patient injuries attributable to falls per 1,000 days.

Percentage of patients who experience a fall during their hospital stay.
 Once data is collected, reviewers can look for trends and patterns in the rate of falls in hospital settings.

There are several contributing factors to a decrease in hospital falls. First, the staff receives more education on fall prevention and how to respond appropriately. Second, the unit establishes a fall prevention team that meets regularly to review data and identify strategies for further reducing falls (Heng et al., 2022). Finally, environmental changes are made, such as adding bed alarms and non-slip mats in high-risk areas to reduce fall rates. Falls are a significant challenge and can lead to severe injuries or death.

QI initiatives and interventions are necessary to reduce the risks of falls (Wells et al., 2018). One way to categorize QI initiatives is by their level of evidence. Level I evidence-based interventions are those with the most substantial scientific support and are considered the most effective (LeLaurin, 2019). Level II interventions have some scientific evidence behind them, while Level III interventions have very little scientific evidence.

- A. Level I interventions for reducing falls in hospitals include (LeLaurin,2019):
  - Introducing fall prevention policies and procedures
  - Conducting regular staff education on fall prevention
  - Implementing bedside nursing rounds
  - Using fall alarms and other assistive devices
  - B. Level II interventions include (LeLaurin, 2019):
    - installing handrails in patients' rooms and bathrooms

- improving lighting in patients' rooms and hallways
- modifying patients' shoes to prevent slipping

QI initiatives and interventions for decreasing falls in the hospital setting were conducted to reduce falls among patients in the hospital (LeLaurin & Shorr, 2019). Ten nurses were given a pre-test, which included questions related to the topic of falls in the setting of narcotics and sleep aides. The average score achieved by the nurses before receiving any information was 60.4%. The study provides valuable insights into how QI initiatives and interventions can help reduce falls in hospital settings. The pre-test results suggest a need for more education and awareness among hospital staff. The purpose of these initiatives is to help decrease falls in hospitals. The pre-test results show that there is still room for improvement in this area. This is vital in ensuring that patients are kept safe from preventable accidents. The post-test results, which included the same ten nurses, after the information was disseminated was 89.9%. The initiative was successful in improving knowledge on reducing falls by providing education and resources to nurses. Ultimately, the intervention has the possibility to improve patient safety and decreased fall risk in the clinical setting (McCarthy et al., 2019).

### **Findings and Implications**

Implementing QI initiatives and interventions is an effective practice for decreasing falls in hospital settings. Table 1 shows the outcomes of 10 nurses subjected to pre and post-tests to assess their understanding of reducing falls in hospital settings.

The table shows that the 10 nurses scored 60.4% on the pre-test and 89.9% on the posttest. These results imply that implementing education and training programs on ways

reduce falls is an effective strategy. Furthermore, frequently trained nurses are more likely to minimize fall rates in the hospital setting (LeLaurin & Shorr, 2019). Table 2 shows a Wilcoxon signed-rank test used to measure the effectiveness of QI initiatives in reducing hospital fall rates. For pre-interventional (staff education module) the fall rate was 23% (12 falls) and post intervention (staff education module) the fall incidence was reduced to 17% (13 falls). It is important to note that the census was significantly higher in December 2021 thru February 2023 (post educational intervention) with 78 patients, than in September 2021 thru November 2021(pre-educational intervention) with only 51 patients. This explains the difference in scores. Furthermore, the results suggest that QI initiatives and interventions significantly reduce hospital falls. Figure 1 illustrates the efficacy of bedside nursing rounds in reducing hospital falls. Thus, the findings imply that implementing bedside nursing rounds driven by best practices ensures staff and patient satisfaction in the continued fall prevention and evaluation of outcomes (King et al., 2018).

Table 1

Pre and Post-Test Results on the Outcomes of 10 Nurses Pre- and Posttests to Assess Understanding of Reducing Falls in Hospital Setting

Participants= 10 Nurses						
Pre-test						
60.4%						
Post-test						
89.9 %						

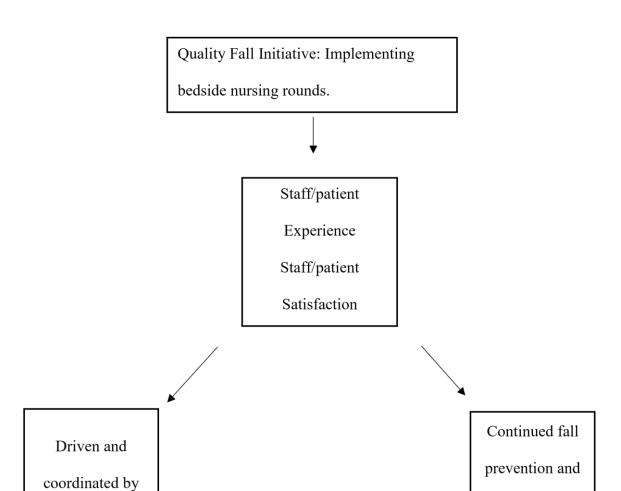
**Table 2**Wilcoxon Signed-Rank Test Used to Measure the Effectiveness of Quality Improvement Initiatives in Reducing Hospital Fall Rates

Month	Pre-Implementation of	Post-Implementation of			
	Interventions	Interventions			
	Census 51 Patient (23 %)	Census 78 Patients (17%)			
	Number of Falls	Number of Fall			
		Occurrences			
September 2021	7				
October 2021	2				
November 2021	3				
December 2021		3			
January 2022		6			
February 2022		4			
Average	Mean = $4.00 (SD = 2.116)$	Mean = $4.33$ (SD = $1.241$ )			
Fall rate	23% (12 falls)	17% (13 falls)			

Pre-implementation of education and intervention the Mean of average falls was 4.00 and SD 2.116. Post education and intervention the number of fall occurrences Mean was 4.33 and SD 1.2 which shows the effectiveness of education.

Figure 2

The Efficacy of Bedside Nursing Rounds in Reducing Hospital Falls



#### Recommendations

The results section required dedication for successful results. Obtaining organizational support was vital to completing this fall initiative on quality improvement. Being able to acknowledge areas for improvement without assigning blame was critical to the success of this quality improvement project. Hospital administration is recommended to consider areas for improvement and other quality improvement techniques as instructive rather than punitive performance measures (Wells et al., 2018). It was also recommended that management give organizational support to make reducing fall risk a top priority across the facility and a well-publicized objective.

Additionally, management was advised to support the goal of making fall risk reduction an essential priority across the facility. Therefore, it is highly advised that the organization maintains an active fall committee. Employees should regularly receive training on the differences between recommended and actual procedures for reducing fall risk. Education should be carried out frequently, at least monthly, by providing staff inservices and disseminating fresh educational reminders (Heng et al., 2019).

Furthermore, it is encouraged that new staff training programs should include knowledge of assessment instruments and the consequences of the steps taken to lower the risks of falls should be stressed. The most vital step is incorporating patient feedback into an individual care plan. The fall committee's ongoing placement is designed to maintain this system. The care plan and individual fall assessments must undergo

frequent internal validation. It is well-recognized that fall risks play an effective role in fall prevention techniques .

Staff members should know that risk rating could be higher or lower than anticipated. Hence, it is crucial to check the specificity and distinctiveness of every score. The fall committee aids in directing staff members through this process and incorporating patient opinions into care. Another crucial suggestion is to perform a mental risk assessment to determine risk factors likely to escalate (LeLaurin & Shorr, 2019). The importance of measuring cognition levels to provide appropriate risk assessments was first explained to stakeholders. A part of ongoing training is the evaluation of cognition skills.

Practice-focused questions helped identify people with cognitive problems and determine alternative needs for reducing fall risk. Cognitive impairment has been recognized as one of the high-risk traits in the hospital setting. As a result, not all patients can contribute to developing their plan of care for fall prevention. Cognitive dysfunction can also be seen in patients who are confused or delirious and in people who already have dementia. People with dementia are more susceptible to delirium (Fong & Inouye, 2022).

Staff education in-services are advised to continue to help identify additional problems that can contribute to falls. Reduced mobility is another risk factor that has been associated with falling. It includes weakness, decreased balance and coordination, impaired gait, and limited movement of the lower extremities. Using the GetUp test and other suitable fall evaluation tools is advised. This assessment is used to help determine the mobility level of patients upon admission and during reevaluations. A physical

evaluation of the patient's ability to get to and from the bathroom is also included to help identify risk patients, a task that was not previously carried out before (Heng et al., 2019).

Most clinical nurses understand that some drugs may have undesirable effects on patients due to alterations in their metabolism and sluggish clearance from renal and hepatic impairment. Drug interactions can have negative consequences and increase the risk of falling. Another suggestion is that a medication reconciliation is performed at the time of arrival to assess the fall risks of admitted patients. The advance care providers, nursing team, medical director, and various members of the interdisciplinary meet to discuss the necessity for medication review and management. They also developed procedures to notify the fall committee chair of high-risk patients.

All staff members and families require training to recognize visual communication cues .Additionally, it is advised that the organization have open lines of communication, discuss risk factors, and gather details on the patients during admission. A vital component of quality improvement is the education of not only patients also incorporating their families.

All patients should receive individualized interventions. Each patient will receive an orientation to the room and its equipment and high risk fall medication education card . The alert patients will have call bells put within their reach. The skilled nursing personnel are not required to perform compliance safety rounds. However, it is crucial to implement facility-wide agreement checks to maintain areas free from clutter within the bathrooms and reduce the risk of falls. Adequate illumination and ensuring that the

equipment is in good working order are further measures. I also advocate reorganizing the current restorative program to emphasize exercise, diet, and strengthening.

The proposed suggestions will help reduce the fall rate by almost half, focusing on only one specific cause (King et al., 2018). The suggestions will be achievable through the use of drugs and sleep aids.

### **Contribution of the Doctoral Project Team**

The doctoral project team has made a significant contribution to quality improvement initiatives and interventions for decreasing falls in the hospital setting. The team's work has helped to identify potential risk factors for falls and to develop strategies for reducing those risks. The team has also been instrumental in developing and implementing fall prevention protocols and in evaluating the effectiveness of those protocols. The team's work has contributed to decreasing falls in the hospital setting and has helped improve patient care quality.

The contribution is evident through the team's ability to utilize data to recognize patterns and trends has led to earlier interventions and a decrease in falls overall. Another team contribution has been developing and implementing new protocols and processes regarding fall prevention. The change in culture surrounding falls been remarkable, with a greater focus on safety and a decrease in incidents which is attributed to the work of the doctoral project team.

The team's research has helped to identify best practices and interventions that can reduce falls in the hospital setting. The team's work has also helped to raise awareness of the significance of quality improvement initiatives in reducing falls. The

doctoral project team has contributed to the research on the project's scope. They have managed to decrease the fall rate by almost half and have isolated one specific cause the use of narcotics and sleep aids. Hence, allowing them to focus sufficiently on making that decrease possible (Ross Purdie, 2019).

#### **Strengths and Limitations of the Project**

The research's ability to alert management to the fact that not all ten nurses followed the same patient safety protocol was one of its strengths. Conducting a pre- and post-pilot questionnaire would also be advised to improve results when identifying potential knowledge base inadequacies for staff members.

Conducting this research required a great deal of time and effort. I had to sift through a large amount of literature to find the most relevant and up-to-date information. Furthermore, it was often difficult to find studies that specifically looked at quality improvement initiatives and interventions for decreasing falls in the hospital setting. This made it challenging to compare and contrast different approaches. Another strength of this research was that it allowed me to explore a variety of quality improvement initiatives. Therefore, there was a better understanding of each approach and its potential efficacy. However, a limitation of this research was that some of the studies were quite old and may not apply to current hospital settings. Additionally, some of the studies were conducted in different countries, making it difficult to generalize the findings to hospitals in the U.S. Despite these challenges, this research was valuable in understanding interventions for decreasing falls in the hospital setting. By exploring the strengths and

limitations of each approach, more effective interventions to reduce falls in hospitals may be created.

One limitation includes the length of the study and the absence of a comparator group, such as a variety of hospitals or a specialized unit with a high patient fall event rate. More research would make it easier to identify patterns of learning deficiencies and potential bias among new and seasoned staff members who directly care for patients. It is suggested that future ventures partner with similar facilities. A good outcome in preventing falls depends on patient compliance with any fall-prevention strategy. The project's findings indicate that several variables are likely at play for fall-prevention programs to be implemented successfully.

#### Section 5: Dissemination Plan

Advance care providers play a crucial role in disseminating knowledge that will advance nursing practice. One way that providers can disburse knowledge is by developing and implementing dissemination programs. A dissemination plan is a document that outlines the steps that will be taken to share new information with members of the interdisciplinary team. The plan might include writing articles or giving presentations at conferences. In the hospital setting providers need to have a wellthought-out dissemination plan because it ensures that the knowledge, they share reaches the right audience and has the desired impact. Another way that APRNS' disseminate knowledge is by conducting research. For example, research can be used to study best practices for preventing hospital falls. APRN's can improve patient safety and care quality nationwide by sharing their findings with other nurses and members of the interdisciplinary team. The sharing of nursing information is a crucial function of the DNP. Nursing knowledge must be widely disseminated to improve nursing practices through integration. The frequency of patient falls in hospital settings can be significantly reduced by understanding the etiology. This exemplifies how patient life quality is enhanced through evidence-based nursing practice. The ultimate goal of knowledge dissemination is to enhance patient safety and care.

The statistics from the internal quarterly fall reports show that patient falls are a significant issue in the hospital setting. Stakeholders from the facility, including the staff educators and fall committee, met to discuss the ongoing fall proposal and related activities, evaluate fall data and track local and national data. As part of the ongoing

effort to lower the risk of falls and injuries, these measures were implemented and are continuously being adopted. The distribution of knowledge from this study is most suited for audiences and groups, including nurses, patients, families, and organizations concentrating on the hospital setting. There should be constant dissemination of information through internal communications to the employees, students, and instructors at the local level. The meetings offered to a broad array of recipients every quarter are the main communication channel. Finally, the global distribution of this knowledge can be achieved through national nursing organizations, healthcare decision-makers, and medical journals like geriatric nursing, the American Journal of Nursing and the Journal of ageing studies (Palmer, 2018). A briefing to the facility's stakeholders is part of the project's plan for dissemination. Additionally, a proposal for a national and regional conference dedicated to skilled care facilities will be developed. A manuscript based on the proposal will be created and submitted to the Publication of the National Association of Directors of Nursing.

#### **Analysis of Self**

As a provider in practice, I found the hospitals fall statistics to be rather concerning. I assumed that all facilities were operating at a comparable scale and had received the same amount of education regarding patient involvement in care. Patient centered care must be emphasized, and clinicians must be educated about importance. I needed to identify practice gaps that dramatically caused patient falls to exceed state and federal thresholds. I discovered the hospital committee lacked awareness in regard to some contributing factors to the high incidence of patient falls. I examined patient falls and organizational practice which provided insight on addressing the mentioned concern.

I also believed that patients needed to be included in their fall prevention plan of care. this quality improvement initiative, responded to these found gaps in practice. Given the vast fall statistics, I rapidly understood that I needed to take a QI strategy to help spark and initiate change. I concentrated on QI and intervention. My desire to educate has been rekindled. It has been gratifying, exhilarating, and motivating for me to have the chance to see the team's passion for gaining new clinical knowledge and approaches to serve patients better.

As an advanced care provider, I am responsible for assessing myself and my practice while implementing QI initiatives and interventions for decreasing falls in the hospital setting. APRN's are gatekeepers to patients care and it is vital we are educating ourselves to provide optimal quality care with the use of evidence-based practice. In the health care arena continuous education and advancement are required to ensure information obtained can be utilized to change practice. Therefore, I can identify areas I need to improve to deliver the best possible care to my patients by critically reflecting on my nursing practice. Nurses must become aware of their strengths and weaknesses to decrease the risks of falls and injuries in hospital settings. Areas in which I need to continue to improve is patient education and communication. I must take the time to explain things thoroughly to patients and their families so that they understand what then is required in order to prevent falls. I also need to assess each patient's risk factors for falling and tailor my teaching accordingly.

Another area in which I can continue to improve is documentation and ordering. I must elaborate on my plan thoroughly to provide an accurate picture of each patient's fall

risk factors and needed interventions. By continuing to assess myself and my practice, I can ensure that I am providing the best possible care to my patients and working towards decreasing falls in the hospital setting.

Narcotics and sleep aids are commonly used in hospitals to help patients relax and fall asleep (Ross Purdie, 2019). However, these medications can also have the side effect of causing drowsiness and dizziness, which can lead to falls. As an advanced care provider, it is vital that I carefully monitor patients taking these medications and ensure they are not at risk for falling. I can achieve this goal by prohibiting narcotics and sleep aids in patients at high risk for falling, such as those who are elderly or have a history of falls. This will help decrease the risks of falls in the hospital setting.

#### **Summary**

Falls are common in healthcare settings, which raises morbidity and mortality rates. The data on incidents linked to falls at the hospital showed areas for improvement in fall programs and ongoing interventions. This quality improvement project's development involved assessing fall prevention procedures, practice setting culture, and patients' part in their fall-related care plan. The physical, mental, and economic effects of falls in healthcare settings made it essential to create a platform that would integrate patient input into nursing practice to reduce fall risks.

Hospital expenses are rising, and hospital-wide budget cuts to new initiatives and departments are systemic problems. The hospital will benefit most from proposed treatment quality changes since it will increase its chances of successfully implementing safety initiatives like the fight against falls (Najafpour et al., 2019). One of these essential

factors for changing patient safety practices based on EBP and regulatory requirements is the presence of clinical champions and leaders to help raise awareness on the aforementioned issues.

The average fall rate in U.S. hospitals is now about half of what it was a decade ago, and the Contribution of the APRN and members of the interdisciplinary team to this decrease cannot be overstated. By isolating one specific cause, the use of narcotics and sleep aids and implementing targeted interventions, the team has greatly impacted patient safety. The team's work has been instrumental in reducing falls by identifying high-risk patients and implementing strategies to keep them safe (Najafpour et al., 2019). One critical intervention has been developing an individualized fall risk assessment tool that considers each patient's unique circumstances. This has allowed staff to target interventions more effectively and prevent falls from happening in the first place. Another important contribution has been its focus on educating staff and patients about fall prevention. Through educational materials, in-services, and webinars, the team has helped raise awareness about how to prevent falls and why it is so important to practice safety measures and minimize the risks of falls. As a result of this work, staff are better equipped to identify fall risks and take steps to mitigate them. Patients are also more likely to be proactive about their safety, which can make all the difference in preventing a fall from happening. The team's efforts have undoubtedly contributed to the dramatic decrease in hospital falls over the past decade. By continuing to work together, healthcare professionals can reduce falls and improve patient safety across all healthcare settings. Based on best practice techniques, it is projected that an updated falls committee,

stronger staff responsibility for policy review, and improved patient rounding may be required to decrease falls (Najafpour et al., 2019). The theories have a proven track record of minimizing falls in this environment. Following best practices, a coordinated strategy for managing contemporary patient falls may involve using nursing theories tailored to suit their demands for better, more effective patient care and workplace resources.

The Theory of Reasoned Action/Planned Behavior emphasizes the value of staff and patient learning requirements. Individuals need to fulfil their physiological needs while ill. Using theory in practice will motivate employees to take ownership of the unit based initiative, enabling staff autonomy to improve the standard of safe patient care. Therefore, study analyses have conclusively shown that providing expert advice to someone unaware of their ignorance and biases will boost that person's knowledge base and job role fulfilment.

This quality improvement project acknowledges the use of routinely updated fall risk assessment methods to identify patient subgroups more likely to experience falls. Various healthcare facilities employ different nursing theories to reduce falls. This is done during admission, every shift at nurse handoff, and if a patient's condition changes. For patient care with a high risk of harm, consistent reinforcement of fall policy and implementation of interventions in practice are required. Since advanced care providers are required to understand the fall policy in hospitals, the APRN must interact with members of the interdisciplinary team to avoid impeding patient safety. The findings of this study highlight the crucial relationship between the application of quality

improvement measures and a decrease in the total number of falls. Several different interventions can reduce falls, including technological and nontechnological ones.

Quality improvement initiatives can be highly effective in reducing falls in the hospital setting, and different interventions can be used to achieve this goal (Innab, 2022).

Therefore, these findings could have vital implications for hospitals and other healthcare organizations working to reduce falls and improve patient safety.

Finally, the quality improvement project has addressed a knowledge gap in the nursing staff's understanding of the relationship between the use of sleep and opioid drugs and increased falls among the adult patient group. The research has shown how crucial it is to improve staff training in this area to promote better results. This is due to the project's focus on healthcare disparities and the explanation of the significance of reducing those disparities in staff education and communication to provide the best safety measures and alternative treatment options. Ultimately, quality improvement efforts have a promising path towards ensuring that nurses are knowledgeable about various measures intended to reduce fall risks in the project facilities.

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Appendix A: Fall Prevention PowerPoint (PPT)

Quality Improvement Initiatives and Interventions for Decreasing Falls in the Hospital Setting

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## Objectives

- Discuss patient falls in the health care setting as a wide-spread problem
- How Interventions can aide in reducing the Incidence of falls
- The Use of Sleep aides and Narcotics and how they can ultimately cause harm in the health care setting
- Theories used to inform the project include the goal-setting theory
- Educating about how. Increasing staff education in this area can facilitate more positive outcomes.
- This project will follow the guidelines of the Nursing role effectiveness model (NREM) and the AACN Synergy Model for Patient Care models.
- Sources of evidence used in this project include online published research outcomes, archived hospital
  data, and data generated from participants during the project.

# Table of Contents

- Objectives
- Significano
- The Problem
- Risk to patient
- Desired Desired
- . Gans to close
- Medications that can contribute to fall
- Risk Involved
- Structures and theories
- Relevance to practice
- Educational importance

## Significance

This aim is to fill a current gap in practice in the areas of knowledge of nursing staff about the correlation between utilization of sleep and opioid medications and the increased occurrence of falls among the adult patient population.

Increasing staff education in this area can facilitate more positive outcomes.

The goal is to provide focus for disparities in health care and reduce the closing of those disparities in education and communication among staff to provide optimal safety measures and alternative treatment options that include a move away from opioids so that harm can be avoided.

### The Problem

- On. Average between 3.3 and 11.5 falls occur per 1,000 patient days (Bouldin et al., 2013).
- Falls in hospitals contribute to an increased hospital stay, lowered quality of life, increased hospital bills, and sometimes even death
- The challenge of falls in healthcare settings has become a significant concern to patients, hospital management, and other stakeholders.
- Patient severe injury or death connected with a fall while in a healthcarerelated setting is viewed as a "never event" by the Joint Commission and the National Quality Forum.
- The Centers for Medicare and Medicaid Services ceased reimbursing hospitals to treat injuries resulting from a fall

### Risk to Patients

- Within a hospital setting, patients face an increased risk of falling when sleep aids and/or opioid narcotics are in use, increasing the incidence of harm and the length of stays in the hospital.
- Herzig et al. (2019) note a correlation between falls in-hospital care and medications that cause sedation.
- Hospitals are, however, still experiencing falls of more than the set national standard of 1.75% or below (Venema et al., 2019).

## **Project Purpose**

- This project aims to analyze interventions and initiatives that decrease the rate of falls and how these strategies can best be implemented to suit patient needs.
- The current state of staff education indicates a gap in training on quality standards and related initiatives that can improve outcomes for patients concerning fall prevention and falls (Francis-Coad et al., 2018).
- This project aims to educate staff and elevate awareness concerning the possible risks associated with using medications that cause sedation and how those medications can harm patients

## Gaps to Close

- This project will confront the problem by identifying specific risk factors and covering the gaps connected to falls, educating nursing staff, and elevating awareness about the importance of boosting the quality of interventions and initiatives to remedy gaps in the practice of nursing connected to falls.
- This project aims to alleviate the gaps in nursing education and knowledge concerning the greater risk of falls among patients who are prescribed and who take sleep and/or opioid medications during hospitalization
- The focus on implementing this level of education will decrease falls overall and falls that involve injury through the raising of staff awareness.

## Medications that may cause falls

Benzodiazepines-Medications
that affect the Brain
Lorazepam, Diazepam,
Alprazolam

Codeine, Hydrocodone,
Non- Benzodiazepine

Zolpidem,Zaleplon,Eszopiclone

Narcotics (Opioid)
Treat pain has effect on cognition and sleep aids is a significant concern in health care. Daoust et al. (2018) conclude that drugs influencing the central nervous system lead to sedation and dizziness and elevate the risk of falls.

### Risk Involved

The issue involving opioids and sleep aids is a significant concern in health care.

Daoust et al. (2018) conclude that drugs influencing the central nervous system lead to sedation and dizziness and elevate the risk of falls.

Using sleep aids and opioids has a connection with an elevated possibility of falls and mortality in older adults.

Encourage the use of alternative medications in place of opioids, this project aims to empower nurses with the proper knowledge to prevent falls in patients on opioid-based medicines

### Structures and Theories

- NREM is a model that highlights the connectivity between the structures, processes, and outcomes of inpatient care.
- NREM posits that models for measuring the efficiency and effectiveness of healthcare approaches have to take the role of the organization's characteristics and the nurse into account on top of those of the patient.
- The effectiveness of nursing care can be examined in terms of the characteristics of the nurse delivering the service, the characteristics of the patient and condition at the time of admission, and the organizational settings.
- Nursing care effectiveness may alternatively be viewed from a patient safety perspective. Effective healthcare is measured in terms of safety-related outcomes like patient falls and medication errors, among others.

## **Relevance to Nursing Practice**

LeLaurin and Shorr (2019) site a falls prevalence of experiencing at least one fall in 2% of all hospitalized patients.

This prevalence is not only high but significant in causing unpredicted injuries. A quarter of all the falls that occur in hospitalized patients cause injuries of different degrees.

The prevalence of seriously injurious falls stands at 10% and commonly consists of head, hip, and sometimes death. Therefore, falls have been listed among the indicators of the quality of care in patients (LeLaurin & Shorr, 2019).

## **Educational Importance**

- The practice gap that this staff education initiative will remedy is the knowledge gap among nursing staff connected to the association between the use of opioids and sleep aid medications and the increased occurrence of falls among the adult patient population in hospitals.
- Through this increase in staff education, the facility will see positive outcomes increase. Patient fall rates decrease once the staff gains awareness of the correlation that falls have with sleep aids and opioid medications. Th
- The goal is to provide focus on disparities and gaps in health care to remedy gaps in education and communication for staff.
- This change in focus will bring about sufficient safety measures and awareness
  of alternative treatment modalities and approaches to pain other than opioid
  medications to reduce the possibility of harm from using those medications.

## **Educational Importance (cont)**

- This project will bridge the knowledge gap that nurses and other healthcare professionals have.
- Proactive fall preventive measures like fall prediction reporting tools and retrospective methods like analysis of incident reports can be helpful if an informed nurse undertakes them.
- The project aims at ensuring that a nurse can interpret patient information and identify risks to and causes of falls among their patients. The project will also enable the nurse to identify dangers to hospital effectively falls inpatient incidence reports.
- The nurse or healthcare provider in charge will learn how to implement evidence-based fall prevention mechanisms for their patients.

## AIM of Project

- This project will target the following members of a hospital population: clinical staff, including advanced practice providers (Pas and APRNs) and nurses, and interdisciplinary team members.
- The purpose of the project is to provide staff with the necessary information and education to provide care for patients who have an elevated risk of falling.
- The project is designed to provide information and insight and generate awareness of patients taking opioids for pain medication and/or sleep aids to bring about quality patient outcomes

## Summary

The gap in healthcare providers' knowledge in addressing falls in patients on sleep aides/narcotics affects many areas of the quality of care provisions for patients.

It influences the types of measures that healthcare providers put into preventing falls and the criteria nurses use to categorize patients into risk level groups. There is, therefore, a need to understand the statics of the problem of falls in hospitals from a broader perspective

Please circle correct answer(s). Each question has one answer except "check all that apply" questions. All questions relate to in-patient diabetes care. Test results are confidential; do not include your name. It takes approximately 15 minutes to complete. After completion, place in slot in researcher's locker, located in the medical-surgical nurses lounge. Please return by the end of this week. Thank you for your time in completing the pretest and demographic survey.

- 1. Which of the following are risk factors for falls in the elderly?
  - a. Visual Impairment
  - b. Decreased bone density
  - c. Medication (Narcotics and sleep aides)
  - d. All of the above
- 2. What does is the estimated cost of falls in the hospital annually in the elderly?
  - a. 10 million
  - b. 100,000
  - c. 500 million
  - d. 30 billion
- 3. Risk factors for falls in the acute setting include all except:
  - a. Dizziness
  - b. Previous falls
  - c. Antibiotic usage
  - d. Impaired Mobility
- 4. In the acute setting Intervention training should include:
  - a. Education for all staff on prevention and precautions
  - b. Use of mobility aids
  - c. Call light response
  - d. Bed alarms for all elderly
- 5. What is the Percentage of Falls that result in serious Injury?
  - a. 10%
  - b. 15%
  - c. 30%
  - d. Less Than 1 %

- 6. Once patient is admitted to the unit fall risk assessment is completed you should:
  - a. Incorporate findings into the patients individualized care plan
  - b. Effectively Communicate high risk patients into the care team
  - c. Follow your hospitals falls. Prevention policy
  - d. Educate the patient and family regarding of their falls risk
  - e. All of the Above
  - f. Only A and D
- 7. A serious injury from a fall increases the length of stay by approximately how many days?
  - a. 6 days
  - b. 2 days
  - c. 1 Day
  - d. has no impact on length of stay
- 8. What does the "ABCS" acronym stand for?
  - a. Altered mental status, back pain, anticoagulation surgery
  - b. Assistive devices, behavior and Commode surgery
  - c. Age, bones, anticoagulation, surgery
  - d. Altered mental status, bed, confusion, sedation
  - e. None of the above
- 9. Which patients are at the highest risk for Falling? (Select All that apply)
  - a. History of Fall
  - b. Impaired memory and cognition
  - c. Impaired Mobility
  - d. Patients on sleep aides and narcotics
- 10. Which Interventions help will aide in preventing falls? (Select all that apply)
  - a. Bedside Shift report
  - b. Safety rounds
  - c. Communication boards
  - d. Complete Fall risk Assessment
  - e. Environmental Rounds
  - f. All of the above

- 11. A fall risk Assessment:
  - a. ensures and promotes implementation of appropriate interventions based on need
  - b. informs staff of patients who are at high risk
  - c. Reduces potential of serious harm
  - d. All of the Above
  - e. Only A & B
- 12. A nurse is admitting a client with Dementia who takes sleep aides and narcotics to the unit. Identify what puts him at an increased risk for falls?
  - a. Dementia
  - b. Hospitalization
  - c. Age
  - d. Sleep Aides & narcotics
- 13. A patient with insomnia and chronic pain complains of being unable to sleep and is requesting oxycodone and Ambien. Which of the following nursing interventions should the nurse carry out first?
  - a. call the provider for an order for Oxycodone and Ambien
  - b. explain the risk and find alternatives
  - c. Administer Tylenol (acetaminophen) and Melatonin as alternative medications
  - d. Complete a full history and physical to identify concerns for insomnia.
- 14. What effect does sleep aids and narcotics have on patients?
  - a. Affects cognition
  - b. Delays response
  - c. No effect
  - d. A & B
- 15. Which medications are likely to cause falls in the elderly?
  - a. Oxycodone
  - b. Xanax
  - c. Atorvastatin
  - d. Colace
  - e. A & B only

## Appendix C: High Risk Medication Handout

ANTI-ANXIETY & SLEEP MEDS	Narcotics (Opioid)  Treat pain has effect on	The issue involving opioids and sleep aids is a significant concern in
Anti-Anxiety benzodiazepines medications that affect the brain:	cognition and causes drowsiness.  Examples include:	health care. Daoust et al. (2018) concluded that drugs influencing the central nervous system such as opioids and sleep aids, can lead to sedation and dizziness and elevate the risk of falls. The combination of these meds puts patients at increased risk for fall and injuries.

## Appendix D: Summary Training Evaluation Form

Instructions: Please indicate your level of agreement with the statements listed below.

	•	_				
Item		Strongly	Agree	Neutral	Disagree	Strongly
		Agree				Disagree

The objectives of the training were clearly defined.			
Participation and interaction were encouraged.			
3. The topics covered were relevant			
4. The content was organized and easy to follow.			
5. The materials distributed were helpful.			
6. This training experience will be useful in my work.			
7. The trainer was knowledgeable about the training topics.			
8. The trainer was well prepared.			
9. The time allotted for each topic was enough.			
10. The training objectives were met.			

Note. Strongly agree = 5; Somewhat agree = 4; Neutral (neither agree nor disagree) = 3; Disagree = 2; Strongly disagree = 1.